

Abstract of the Disclosure

A discharge lamp which maintains a high lumen maintenance factor even when operated for a long time is obtained in a discharge lamp which has a silica glass discharge vessel and a pair of opposed electrodes in the discharge vessel and in which the discharge vessel is filled with at least 0.15 mg/mm³ mercury, a rare gas with argon as the main component, and 2 x 10⁻⁴ μ mole/mm³ to 7 x 10⁻³ μ mole/mm³ bromine by meeting the following conditions when feeding a direct current of 5 mA between the electrodes and a glow discharge produced:

Condition (1): $1.0 \times 10^{-4} \leq b/a \leq 1.2 \times 10^{-1}$

Condition (2): $c/a \leq 1.4 \times 10^{-1}$

Condition (3): $d/a \leq 1.2 \times 10^{-2}$

Condition (4): $e/a \leq 1.4 \times 10^{-2}$

where a is the emission intensity of the argon with a wavelength of 668 nm, b is the emission intensity of OH with a wavelength of 309 nm, c is the emission intensity of hydrogen (H) with a wavelength of 656 nm; d is the emission intensity of C₂ with a wavelength of 517 nm, and e is the emission intensity of CH with a wavelength of 431 nm